



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,715	11/12/2003	John I. Shipp	127.0005-00000	7246
22882	7590	05/04/2007		
MARTIN & FERRARO, LLP 1557 LAKE O'PINES STREET, NE HARTVILLE, OH 44632			EXAMINER SONNETT, KATHLEEN C	
			ART UNIT 3731	PAPER NUMBER
			MAIL DATE 05/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/706,715	Applicant(s) SHIPP, JOHN I.	
	Examiner Kathleen Sonnett	Art Unit 3731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 25 and 26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/28/2006</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-24, drawn to a clip, classified in class 606, subclass 157.
 - II. Claims 25-26, drawn to a method of ligating, classified in class 606, subclass 139.

2. The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product. See MPEP § 806.05(h). In the instant case the product can be used in a materially different process such as clipping a stack of papers together.

3. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Mr. Thomas Martin on 4/11/07 a provisional election was made without traverse to prosecute the invention of group I, claims 1-24.

Affirmation of this election must be made by applicant in replying to this Office action. Claims 25 and 26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

5. The disclosure is objected to because of the following informalities: clarification is needed regarding the passage in para. [0035], "a preload force is imposed on upper and lower support members.... so that the magnitude of the force is greater than necessary to move the upper and lower members 106, 108 into contact". This appears to be the basis for claim 4 and claim 17 but it is not exactly clear to the examiner what is meant by these two claims because it seems to the examiner that any spring clip is adapted to apply a force to the upper and lower support members to bias the upper and lower support members toward one another in a closed position, the force being greater than needed to move the upper and lower members into contact with one another. That is, the support members are biased close and are not being held together only by gravity. For the purposes of art rejections, the examiner has treated all spring clips biased closed as reading on this limitation.

Appropriate correction is required.

Claim Objections

6. **Claim 2** is objected to because of the following informalities: the wording of the claim "has a maximum diameter of 1.0 mm" is unclear. It is unclear whether the limitation is meant to indicate that the wire may have a diameter of less than or equal to 1.0 mm or that the wire must have, somewhere along its length, a diameter of 1.0 mm, and the rest of the wire has a diameter that is equal to or less than 1.0 mm. For the purpose of art rejections, the examiner has treated the claim as though it reads "the wire has a maximum diameter of less than or equal to 1.0 mm." Appropriate correction and clarification is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. **Claims 1, 3-7, 12, 13, 15-20** are rejected under 35 U.S.C. 102(b) as being anticipated by Parker (U.S. 3,125,789). Parker discloses a clip capable of ligating a fluid carrying structure, the clip comprising a mid-longitudinal axis, a distal and proximal end, and a length between the ends, an upper support member (27,29) oriented generally along the mid-longitudinal axis and a lower support member (19,21) oriented generally along the mid-longitudinal axis of the clip and a connector (10) at the proximal end of the clip, the connector joining the upper and lower support members, the clip being formed of a single piece of wire (col. 1 ll. 44-47) having a first and second free end (15 and 33), each terminating proximate the proximal end (see fig. 3).

9. Regarding claims 12 and 13, Parker discloses a clip comprising a mid-longitudinal axis a distal and proximal end and a length between ends, an upper support member and lower support member both being oriented generally along the mid-longitudinal axis of the clip between the ends of the clip and a connector. The lower support member is opposite the upper support member in a vertical plane parallel to the mid-longitudinal axis. Looking at the coil in figs 1 or 3, element (11) of the lower support member starts to form the coil member. The first half of the coil (starting at (21,22)) is being considered part of the lower support member and the second half (which eventually becomes pieces (25,26,27)) is being considered part of the upper support member. Parker discloses a connector at the proximal end of the clip that joins the upper and lower support members, the clip being formed of a single piece of material having a

first and second free end terminating proximate the proximal end. At least one of the free ends faces in a direction that is transverse to the mid-longitudinal axis of the clip (see fig. 3).

10. Regarding claim 15, the ends (15, 33) face a direction generally transverse to the mid-longitudinal axis of the clip. This is considered away from the proximal end of the clip. That is, away from the proximal end does not necessarily mean towards the distal end, rather any direction besides toward the proximal end.

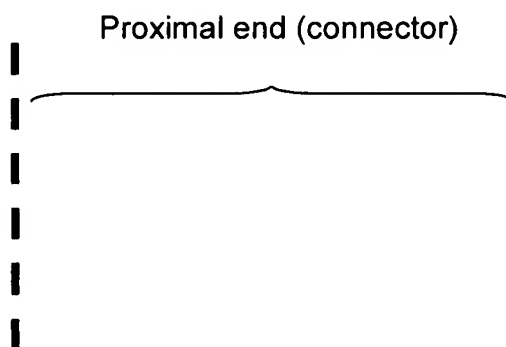
11. Regarding claims 3 and 16, see col. 2 ll. 54-57 (opening against the force of the connector).

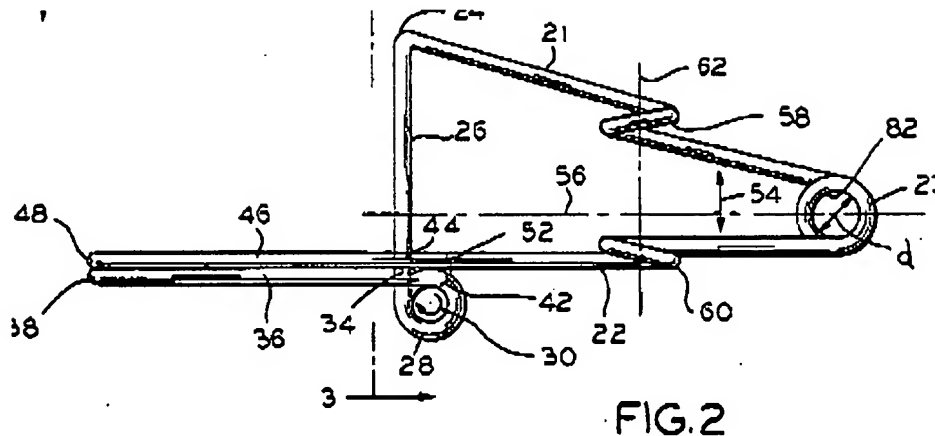
12. Regarding claims 4 and 17, the clip is a coiled torsion spring clip and is adapted to clip onto objects.

13. Regarding claims 5, 6, 18, and 19, the connector includes a coil having an interior, the first and second ends of the wire terminating proximate the interior of the coil (see fig.3).

14. Regarding claims 7 and 20, see (20) and (28).

15. **Claims 1 and 3-10** are rejected under 35 U.S.C. 102(b) as being anticipated by Perlin (U.S. 4,777,949). Perlin discloses a clip capable of ligating a fluid carrying structure, the clip comprising a mid-longitudinal axis, a distal and proximal end, and a length between the ends, an upper support member (46) oriented generally along the mid-longitudinal axis and a lower support member (36) oriented generally along the mid-longitudinal axis of the clip and a connector at the proximal end of the clip, the connector joining the upper and lower support members, the clip being formed of a single piece of wire (col. 2, ll. 51-54) having a first and second free end (42,52), each terminating proximate the proximal end (see figure below).





16. Regarding claims 3 and 4, the connector is adapted to bias the upper and lower support member toward one another. The connector applies a force to the support members that is greater than that needed to move the members into contact with one another as seen in fig. 7 and 8, where the support members are able to flatten the vessel (V) and the clip is spring biased closed.

17. Regarding claims 5 and 6, the connector includes a coil (28) having an interior. The ends are proximate the coil.

18. Regarding claim 7, see (38) and (48).

19. Regarding claims 8 and 9, see fig. 9.

20. Regarding claim 10, see fig. 7 and 8, especially elements (70) and (72).

21. **Claims 1, 3-9, 12, 13, and 16-22** are rejected under 35 U.S.C. 102(b) as being anticipated by Larsen (U.S. 2,113,991). Larsen discloses a clip capable of ligating a fluid carrying structure, the clip comprising a mid-longitudinal axis, a distal and proximal end, and a length between the ends, an upper support member oriented generally along the mid-longitudinal axis and a lower support member oriented generally along the mid-longitudinal axis of the clip and a connector (1) at the proximal end of the clip, the connector joining the upper

Art Unit: 3731

and lower support members, the clip being formed of a single piece of wire (col. 1 ll. 38-41) having a first and second free end (5, 8), each terminating proximate the proximal end (see fig. 3).

22. Regarding claims 12 and 13, Larsen discloses a clip comprising a mid-longitudinal axis a distal and proximal end and a length between ends, an upper support member and lower support member both being oriented generally along the mid-longitudinal axis of the clip between the ends of the clip and a connector. The lower support member is opposite the upper support member in a vertical plane parallel to the mid-longitudinal axis. For example, looking at the coil, the lower support member starts to form the coil member. The first half of the coil is being considered part of the lower support member and the second half is being considered part of the upper support member since it leads into it. Larsen discloses a connector at the proximal end of the clip that joins the upper and lower support members, the clip being formed of a single piece of material having a first and second free end terminating proximate the proximal end. The two ends face in a direction that is generally transverse to the longitudinal axis of the clip. The ends are being considered elements 5 and 8. Although the ends (5) turn up at their very ends, the majority of the ends (5) face in a direction that is transverse to the mid-longitudinal axis of the clip.

23. Regarding claims 3 and 16, see col. 2 ll. 54-57 (opening against the force of the connector).

24. Regarding claims 4 and 17, the clip is a spring clip.

25. Regarding claims 5, 6, 18, and 19, the connector includes a coil having an interior, the first and second ends of the wire terminating proximate the interior of the coil (see fig.3).

26. Regarding claims 7 and 20, see (20) and (28).

27. Regarding claims 8, 9, 21 and 22, the upper and lower support members each have two parallel longitudinal members with a recess therebetween, the members of the upper support member being adapted to generally overlie the longitudinal members of the lower support member.

28. **Claims 1, 12, and 14** are rejected under 35 U.S.C. 102(b) as being anticipated by Sigler (U.S. 1,666,514). Sigler discloses a clip capable of ligating a fluid carrying structure, the clip comprising a mid-longitudinal axis, a distal and proximal end, and a length between the ends, an upper support member (6) oriented generally along the mid-longitudinal axis and a lower support member (2) oriented generally along the mid-longitudinal axis of the clip and a connector (4) at the proximal end of the clip, the connector joining the upper and lower support members, the clip being formed of a single piece of wire having a first and second free end (1,10), each terminating proximate the proximal end (see fig. 1).

29. Regarding claims 12 and 14, the lower support member is opposite the upper support member in a vertical plane parallel to the mid-longitudinal axis. For example, looking at fig. 1, paper 11 defines a vertical plane and the support members are on opposite sides of the plane. The free end (10) faces generally toward the distal end of the clip.

30. **Claims 1, 3, 4-7, 10, 12, 13, 15-20, and 23** are rejected under 35 U.S.C. 102(b) as being anticipated by Kees, Jr. (U.S. 4,777,950). Kees discloses a clip capable of ligating a fluid carrying structure, the clip comprising a mid-longitudinal axis, a distal and proximal end, and a length between the ends, an upper support member oriented generally along the mid-longitudinal axis and a lower support member oriented generally along the mid-longitudinal axis of the clip and a connector (34, 38, 40) at the proximal end of the clip, the connector joining the upper and lower support members, the clip being formed of a single piece of wire having a first and second free end , each terminating proximate the proximal end (see fig. 1).

31. Regarding claims 12, 13, and 15, the lower support member is opposite the upper support member in a vertical plane parallel to the mid-longitudinal axis. The examiner is considering portion (44) to be part of the lower support member since it connects to the lower support member in fig. 2 and portion (42) to be part of the upper support member. These portions are opposite each other on either side of a vertical plane (see fig.3). The ends (32, 30) face a direction generally transverse to the mid-longitudinal axis of the clip. This is considered away from the proximal end of the clip. That is, away from the proximal end does not necessarily mean towards the distal end, rather any direction besides toward the proximal end.
32. Regarding claims 4 and 17, the clip is used to seal off an aneurysm (col. 2 ll. 31-33) and is a spring clip.
33. Regarding claims 5, 6, 18, and 19, the connector includes a coil (34). This coil has an interior because the free ends of the clip are proximate the coil, they are proximate of every portion of the coil including the interior of the coil.
34. Regarding claims 7 and 20, see fig. 1.
35. Regarding claim 10, see col. 2, ll. 26-34.

Claim Rejections - 35 USC § 103

36. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

37. **Claim 2** is rejected under 35 U.S.C. 103(a) as being unpatentable over Perlin in view of Shipp et al. (U.S. 5,593,414). Perlin discloses the invention substantially above including that the clip is only a few millimeters in maximum dimension but is silent on the diameter of the wire.

38. However, Shipp et al. discloses that it is old and well known to use a wire having a diameter of 0.75mm to form a surgical clip. This small diameter allows the clip to be placed within an endoscopic surgical field through a 5 mm diameter trocar port. Therefore, it would have been obvious to one of ordinary skill in the art to modify the device of Perlin to use a 0.75 mm diameter wire as made obvious by Shipp et al. in order to gain the advantage of being able to introduce the clip through a very small diameter trocar port.

39. **Claims 11 and 24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Kees, Jr. in view of Shipp et al. (U.S. 5,858,018). Kees discloses the invention substantially as stated above including that the clip may be applied using a clip applier, but does not disclose using a clip applier that includes a magazine adapted to hold a plurality of clips.

40. However, Shipp discloses a surgical clip applier that avoids permanently deforming or weakening spring clips. The applier includes a cartridge (see fig. 2). Such cartridges are advantageous because they allow a plurality of clips to be delivered without having to remove or reload the device after a clip is delivered. Therefore, it would have been obvious to one of ordinary skill in the art to modify the device of Kees, Jr. to include a clip applier in combination with the clip that includes a magazine adapted to hold a plurality of clips as made obvious by Shipp in order to be able to deliver a plurality of clips without having to remove and reload the device after each clip is delivered.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kathleen Sonnett whose telephone number is 571-272-5576. The examiner can normally be reached on 7:30-5:00, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anh Tuan Nguyen can be reached on 571-272-4963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KCS 4/17/2007


GLENN K. DAWSON
PRIMARY EXAMINER